

FFFFFFFFFFF	111	111	AAAAAAA
FFFFFFFFFFF	111	111	AAAAAAA
FFFFFFFFFFF	111	111	AAAAAAA
FFF	111111	111111	AAA
FFF	111111	111111	AAA
FFF	111111	111111	AAA
FFF	111	111	AAA
FFF	111	111	AAA
FFF	111	111	AAA
FFF	111	111	AAA
FFFFFFFFFFF	111	111	AAA
FFFFFFFFFFF	111	111	AAA
FFFFFFFFFFF	111	111	AAA
FFF	111	111	AAAAAAA
FFF	111	111	AAAAAAA
FFF	111	111	AAAAAAA
FFF	111	111	AAA
FFF	111	111	AAA
FFF	11111111	11111111	AAA
FFF	11111111	11111111	AAA
FFF	11111111	11111111	AAA

FILE ID**INIFCB

M 13

IIIIIIII NN NN IIIIIII FFFFFFFF CCCCCCCC BBBB BBBB
IIIIIIII NN NN IIIIIII FFFFFFFF CCCCCCCC BBBB BBBB
IIIIIIII NN NN IIIIIII FF CC BBB BBBB BBBB
IIIIIIII NN NN IIIIIII FF CC BBB BBBB BBBB
IIIIIIII NNNN NN IIIIIII FF CC BBB BBBB BBBB
IIIIIIII NNNN NN IIIIIII FF CC BBB BBBB BBBB
IIIIIIII NN NN NN IIIIIII FFFFFFFF CC BBB BBBB BBBB
IIIIIIII NN NN NN IIIIIII FFFFFFFF CC BBB BBBB BBBB
IIIIIIII NN NNNN IIIIIII FF CC BBB BBBB BBBB
IIIIIIII NN NNNN IIIIIII FF CC BBB BBBB BBBB
IIIIIIII NN NN IIIIIII FF CC BBB BBBB BBBB
IIIIIIII NN NN IIIIIII FF CC BBB BBBB BBBB
IIIIIIII NN NN IIIIIII FF CC BBB BBBB BBBB
IIIIIIII NN NN IIIIIII FF CC BBB BBBB BBBB
IIIIIIII NN NN IIIIIII FF CCCCCCCC BBB BBBB BBBB
IIIIIIII NN NN IIIIIII FF CCCCCCCC BBB BBBB BBBB

IN
VO
:

```
1 0001 0 MODULE INIFCB (
2 0002 0   LANGUAGE (BLISS32),
3 0003 0   IDENT = 'V04-000'
4 0004 0   )
5 0005 1 BEGIN
6 0006 1
7 0007 1
8 0008 1 ****
9 0009 1 *
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27 0027 1 *
28 0028 1 *
29 0029 1 ****
30 0030 1
31 0031 1 ++
32 0032 1
33 0033 1 FACILITY: F11ACP Structure Level 1
34 0034 1
35 0035 1 ABSTRACT:
36 0036 1
37 0037 1 These routines create and initialize a file control block
38 0038 1 from the given file header.
39 0039 1
40 0040 1 ENVIRONMENT:
41 0041 1
42 0042 1 STARLET operating system, including privileged system services
43 0043 1 and internal exec routines. These routines must be called in
44 0044 1 kernel mode.
45 0045 1
46 0046 1
47 0047 1 --
48 0048 1
49 0049 1
50 0050 1 AUTHOR: Andrew C. Goldstein, CREATION DATE: 14-Dec-1976 16:48
51 0051 1
52 0052 1 MODIFIED BY:
53 0053 1
54 0054 1   V03-002 LMP0221   L. Mark Pilant,   31-Mar-1984 12:16
55 0055 1   Add support for an ORB in the FCB.
56 0056 1
57 0057 1   V03-001 STJ3108   Steven T. Jeffreys, 24-Jun-1983
```

58 0058 1 | Fix link truncation error.
59 0059 1 |
60 0060 1 | A0100 ACG0001 Andrew C. Goldstein, 10-Oct-1978 20:01
61 0061 1 | Previous revision history moved to F11A.REV
62 0062 1 |
63 0063 1 | **
64 0064 1 |
65 0065 1 |
66 0066 1 LIBRARY 'SYSSLIBRARY:LIB:L32';
67 0067 1 REQUIRE 'SRC\$:FCPDEF.B32';

```
: 69      0382 1 GLOBAL ROUTINE INIT_FCB (FCB, HEADER) : NOVALUE =
: 70      0383 1
: 71      0384 1 ++
: 72      0385 1
: 73      0386 1 FUNCTIONAL DESCRIPTION:
: 74      0387 1
: 75      0388 1 This routine initializes the given FCB according to the given
: 76      0389 1 file header.
: 77      0390 1
: 78      0391 1 CALLING SEQUENCE:
: 79      0392 1     INIT_FCB (ARG1, ARG2)
: 80      0393 1
: 81      0394 1 INPUT PARAMETERS:
: 82      0395 1     ARG1: FCB address
: 83      0396 1     ARG2: header address
: 84      0397 1
: 85      0398 1 IMPLICIT INPUTS:
: 86      0399 1     HEADER_LBN contains LBN of header block
: 87      0400 1
: 88      0401 1 OUTPUT PARAMETERS:
: 89      0402 1     NONE
: 90      0403 1
: 91      0404 1 IMPLICIT OUTPUTS:
: 92      0405 1     NONE
: 93      0406 1
: 94      0407 1 ROUTINE VALUE:
: 95      0408 1     NONE
: 96      0409 1
: 97      0410 1 SIDE EFFECTS:
: 98      0411 1     FCB initialized
: 99      0412 1
:100     0413 1 !--
:101     0414 1
:102     0415 2 BEGIN
:103     0416 2
:104     0417 2 MAP
:105     0418 2     FCB          : REF BBLOCK,    | FCB argument
:106     0419 2     HEADER       : REF BBLOCK;   | file header arg
:107     0420 2
:108     0421 2 LOCAL
:109     0422 2     FCB_ORB      : REF BBLOCK,    | Address of the ORB within the FCB
:110     0423 2     MAP_AREA     : REF BBLOCK,    | pointer to header map area
:111     0424 2     MAP_COUNT    : REF BBLOCK,    | count of map pointers
:112     0425 2     MAP_POINTER  : REF BBLOCK,    | pointer to scan map
:113     0426 2     FILESIZE     : REF BBLOCK,    | size of file in blocks
:114     0427 2
:115     0428 2 EXTERNAL
:116     0429 2     HEADER_LBN  : ADDRESSING_MODE (GENERAL); ! LBN of file header
:117     0430 2
:118     0431 2 ! Set up the ORB address.
:119     0432 2
:120     0433 2     FCB_ORB = FCB[FCB$R_ORB];
:121     0434 2
:122     0435 2 ! Get the known constants and the simple stuff from the file header
:123     0436 2     (i.e., header LBN, file ID, starting VBN, file owner and file protection).
:124     0437 2
:125     0438 2
```

```

: 126      0439 2 FCB[FCB$L_HDLBN]      = .HEADER_LBN;
: 127      0440 2 FCB[FCB$W_FID_NUM]    = .HEADER[FH1$W_FID_NUM];
: 128      0441 2 FCB[FCB$W_FID_SEQ]    = .HEADER[FH1$W_FID_SEQ];
: 129      0442 2 FCB_ORB[ORB$W_UICMEMBER] = .HEADER[FH1$B_UICMEMBER];
: 130      0443 2 FCB_ORB[ORB$W_UICGROUP] = .HEADER[FH1$B_UICGROUP];
: 131      0444 2 FCB_ORB[ORB$V_PROT 16] = 1;
: 132      0445 2 FCB_ORB[ORB$W_PROT]      = .HEADER[FH1$W_FILEPROT];
: 133      0446 2 IF .HEADER[FHT$V_SPOOL] THEN FCB[FCB$V_SPOOL] = 1;
: 134      0447 2 FCB[FCB$L_EFBLK]        = ROT (.BBLOCK[HEADER[FH1$W_RECATTR], FAT$L_EFBLK], 16);
: 135      0448 2 IF .FCB[FCB$L_EFBLK] NEQ 0
: 136      0449 2 AND .BBLOCK[HEADER[FH1$W_RECATTR], FAT$W_FFBYTE] EQ 0
: 137      0450 2 THEN FCB[FCB$L_EFBLK] = .FCB[FCB$L_EFBLK] - 1;
: 138
: 139      0452 2 ! Now scan the map area. Get the starting LBN if the file is contiguous
: 140      0453 2 and count up the file size from the retrieval pointers.
: 141
: 142      0454 2 !
: 143      0455 2
: 144      0456 2 MAP_AREA = .HEADER + .HEADER[FH1$B_MPOFFSET]*2;
: 145      0457 2 MAP_POINTER = MAP_AREA + FM1$C_POINTERS;
: 146      0458 2 FCB[FCB$W_SEGN] = .MAP_AREA[FM1$B_EX_SEGNUM];
: 147      0459 2
: 148      0460 2 FCB[FCB$L_STLBN] = 0;           ! assume non-contiguous file
: 149      0461 2 IF .HEADER[FH1$V_CONTIG]
: 150      0462 2 THEN
: 151      0463 3 BEGIN
: 152      0464 3   FCB[FCB$L_STLBN] = .MAP_POINTER[FM1$W_LOWLBN]; ! get low order LBN
: 153      0465 3   (FCB[FCB$C_STLBN])<16,85 = .MAP_POINTER[FM1$B_HIGHLBN]; ! and high order
: 154      0466 2 END;
: 155      0467 2
: 156      0468 2 FILESIZE = 0;
: 157      0469 2 DECR MAP COUNT FROM .MAP_AREA[FM1$B_INUSE]/2 TO 1 DO
: 158      0470 3 BEGIN
: 159      0471 3   FILESIZE = .FILESIZE + .MAP_POINTER[FM1$B_COUNT] + 1;
: 160      0472 3   MAP_POINTER = .MAP_POINTER + 4;
: 161      0473 2 END;
: 162      0474 2 FCB[FCB$L_FILESIZE] = .FILESIZE;
: 163      0475 2
: 164      0476 2 IF .FCB[FCB$L_EFBLK] GTR .FILESIZE
: 165      0477 2 THEN FCB[FCB$C_EFBLK] = .FILESIZE;
: 166      0479 1 END;                         ! end of routine INIT_FCB

```

```

.TITLE INIFCB
.IDENT \V04-000\
.EXTRN HEADER_LBN
.PSECT $CODE$,NOWRT,2

```

	53	04	AC	003C	00000	.ENTRY	INIT_FCB, Save R2,R3,R4,R5	0382
	50	58	A3	9E	00002	MOVL	FCB,-R3	0433
34	A3	00000000G	00	00	00006	MOVAB	88(R3), FCB_ORB	0439
	52	08	AC	00	00012	MOVL	HEADER_LBN,-52(R3)	0440
24	A3	02	A2	00	00016	MOVL	HEADER, R2	0441
	60	08	A2	9B	0001B	MOVL	2(R2), 36(R3)	0442
						MOVZBW	8(R2), (FCB_ORB)	

02	A0	09	A2	9B	0001F	MOVZBW	9(R2)	2(FCB_ORB)	: 0443		
08	A0	01	88	00024	BISB2	#1, 11(FCB_ORB)		: 0444			
18	A0	0A	A2	B0	00028	MOVW	10(R2)	24(FCB_ORB)	: 0445		
04	0D	A2	04	E1	0002D	BBC	#4, 13(R2)	1\$: 0446		
22	A3	10	88	00032	BISB2	#16, 34(R3)					
65	16	A2	3C	A3	9E	00036	1\$:	MOVAB	60(R3), R5	: 0447	
			10	9C	0003A	ROT1	#16, 22(R2), (R5)				
			07	13	0003F	BEQL	2\$: 0448		
			1A	A2	B5	00041	TSW	26(R2)	: 0449		
				02	12	00044	BNE	2\$			
				65	D7	00046	DECL	(R5)	: 0450		
			50	01	A2	9A	00048	2\$:	MOVZE	1(R2), R0	: 0456
			51	6240	3E	0004C	MOVAW	(R2)[R0], MAP AREA			
			2A	50	0A	A1	9E	00050	MOVAB	10(R1), MAP_POINTER	: 0457
				61	9B	00054	MOVZBW	(MAP AREA), 42(R3)	: 0458		
			30	A3	D4	00058	CLRL	48(R3)	: 0460		
			0C	A2	95	0005B	TSTB	12(R2)	: 0461		
			30	A3	02	A0	3C	00060	MOVZWL	2(MAP_POINTER), 48(R3)	: 0464
			32	A3	60	90	00065	MOVB	(MAP_POINTER), 50(R3)	: 0465	
			54	08	52	D4	00069	3\$:	CLRL	FILESIZE	: 0468
			54	A1	9A	0006B	MOVZBL	8(MAP AREA), R4	: 0469		
				02	C6	0006F	DIVL2	#2, R4			
				54	D6	00072	INCL	MAP_COUNT			
				0C	11	00074	BRB	5\$			
			51	01	A0	9A	00076	4\$:	MOVZBL	1(MAP_POINTER), R1	: 0471
			52	01	A1	42	9E	0007A	MOVAB	1(R1)[FILESIZE], FILESIZE	
			50	04	C0	0007F	ADDL2	#4, MAP_POINTER	: 0472		
			F1	54	F5	00082	5\$:	SOBGTR	MAP_COUNT, 4\$: 0469	
			38	A3	52	D0	00085	MOVL	FILESIZE, 56(R3)	: 0474	
			52	65	D1	00089	CMPL	(R5), FILESIZE	: 0476		
				03	15	0008C	BLEQ	6\$			
			65	52	D0	0008E	MOVL	FILESIZE, (R5)	: 0477		
				04	00091	6\$:	RET		: 0479		

: Routine Size: 146 bytes, Routine Base: \$CODE\$ + 0000

```
: 167      0480 1
: 168      0481 1 END
: 169      0482 0 ELUDOM
```

PSECT SUMMARY

Name	Bytes	Attributes
\$CODE\$	146	NOVEC,NOWRT, RD, EXE,NOSHR, LCL, REL, CON,NOPIC,ALIGN(2)

Library Statistics

INIFCB
VO4-000

F 14
16-Sep-1984 01:07:36
14-Sep-1984 12:29:38
VAX-11 Bliss-32 V4.0-742
DISKSVMSMASTER:[F11A.SRC]INIFCB.B32;1 Page 6
(2)

File
:_\$255\$DUA28:[SYSLIB]LIB.L32;1

File	Total	Symbols Loaded	Symbols Percent	Pages Mapped	Processing Time
:_\$255\$DUA28:[SYSLIB]LIB.L32;1	18619	31	0	1000	00:01.9

COMMAND QUALIFIERS

BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LIS\$:INIFCB/OBJ=OBJ\$:INIFCB MSRC\$:INIFCB/UPDATE=(ENH\$:INIFCB)

Size: 146 code + 0 data bytes
Run Time: 00:07.9
Elapsed Time: 00:26.3
Lines/CPU Min: 3642
Lexemes/CPU-Min: 17410
Memory Used: 110 pages
Compilation Complete

0165 AH-BT13A-SE
VAX/VMS V4.0

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